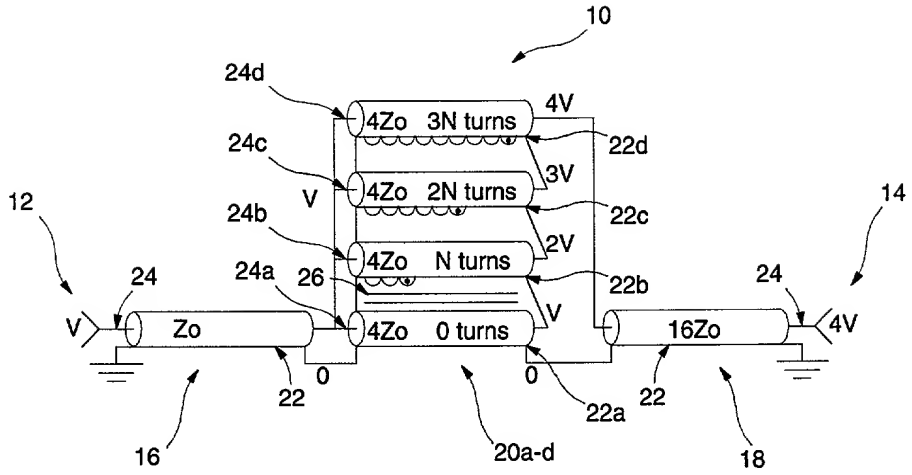


Figure 1. 16:1 TLT of the prior art, properly assembled.

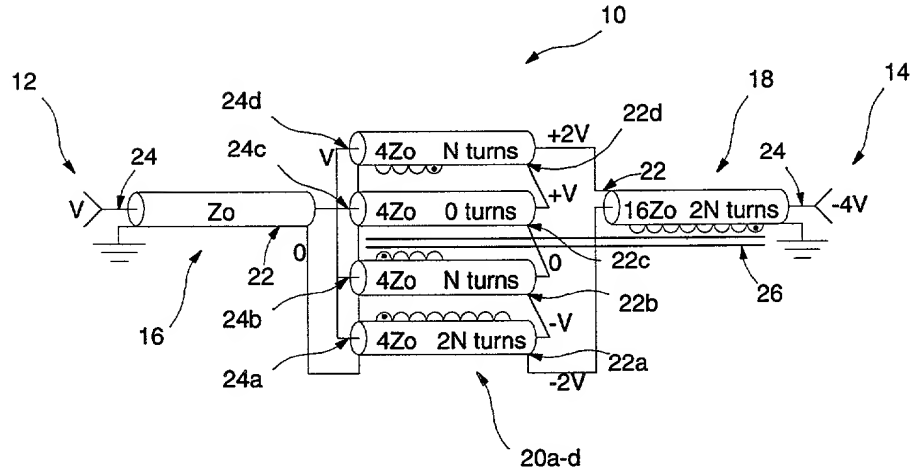


Figure 2. 16:1 Inverting Balanced TLT of prior art. Balancing the voltages positive and negative within the TLT reduces capacitive energy losses. This can be made non-inverting by simply reversing the connections and helicity of cable 18.

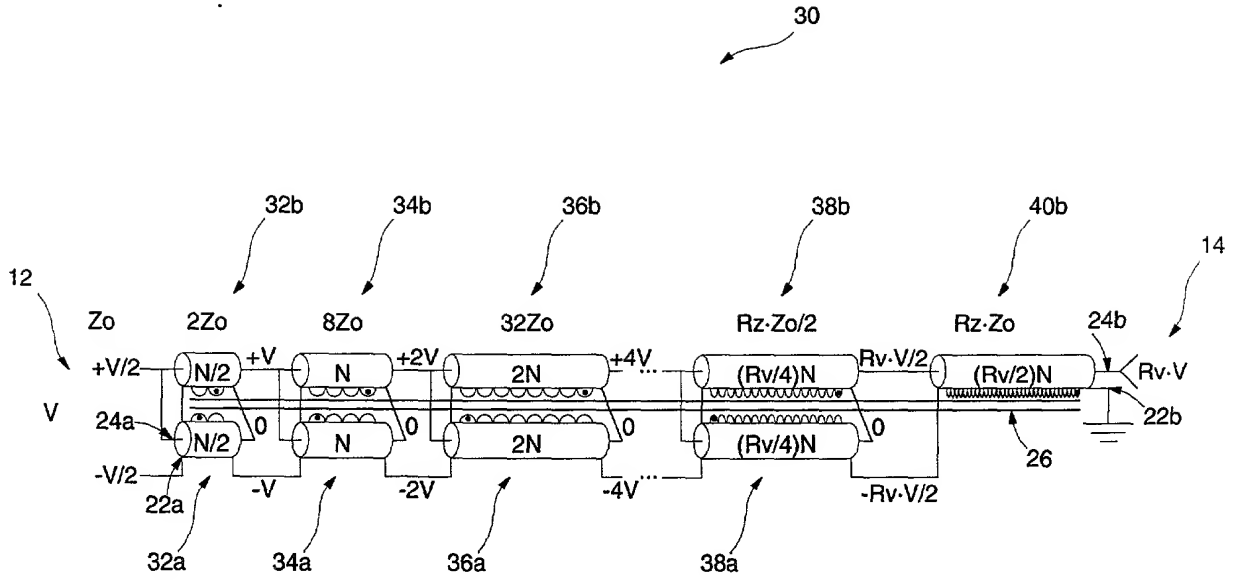


Figure 3. Generalized schematic of a non-inverting STLT.

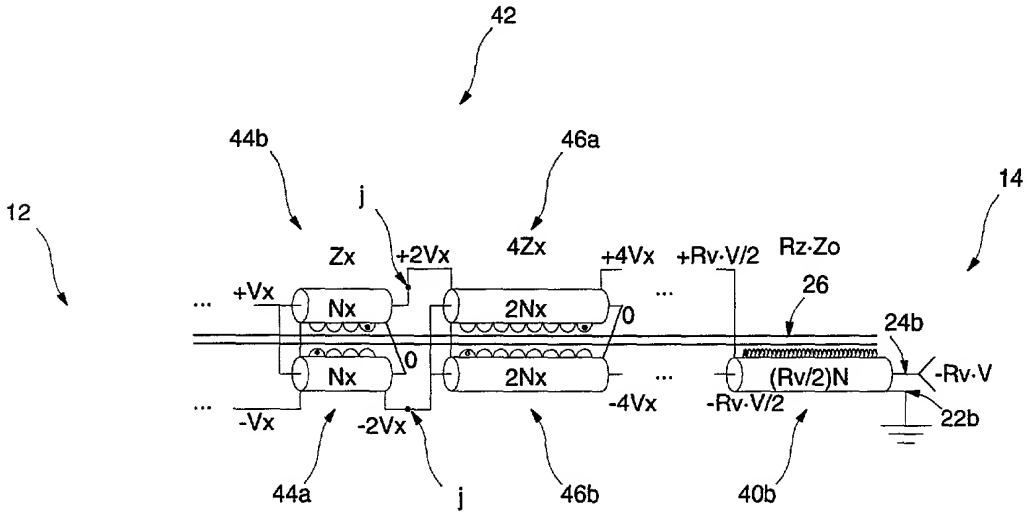


Figure 4. Method of inverting the STLT signal. The connections at a junction j between any sections can be reversed. To maintain consistent field polarity, the entire remaining portion of the STLT is simply flipped around to opposite legs of the core. The STLT is literally inverted.

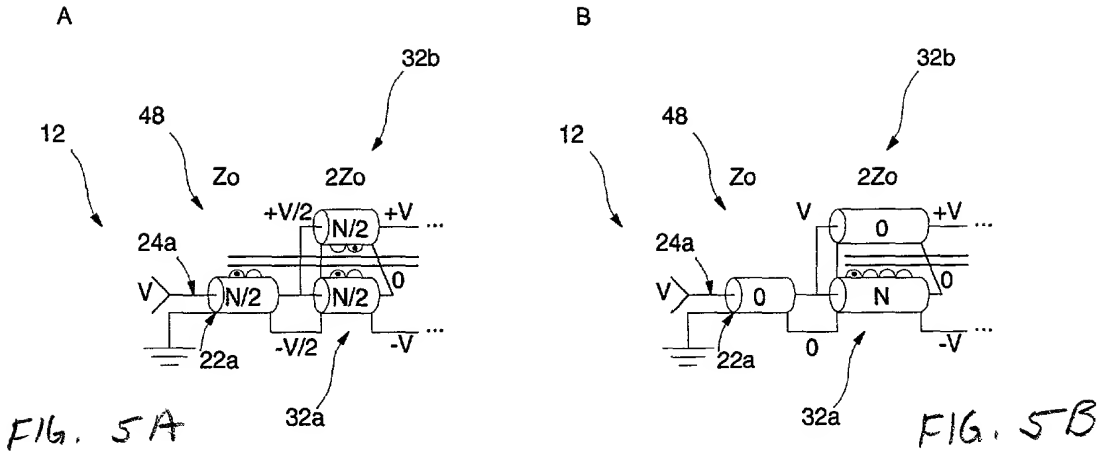


Figure 5. Two simple schemes for single-ended termination of STLT 30 low impedance end 12 which leave the rest of the STLT 30 unchanged. A) completely balanced, shortest length B) least turns.

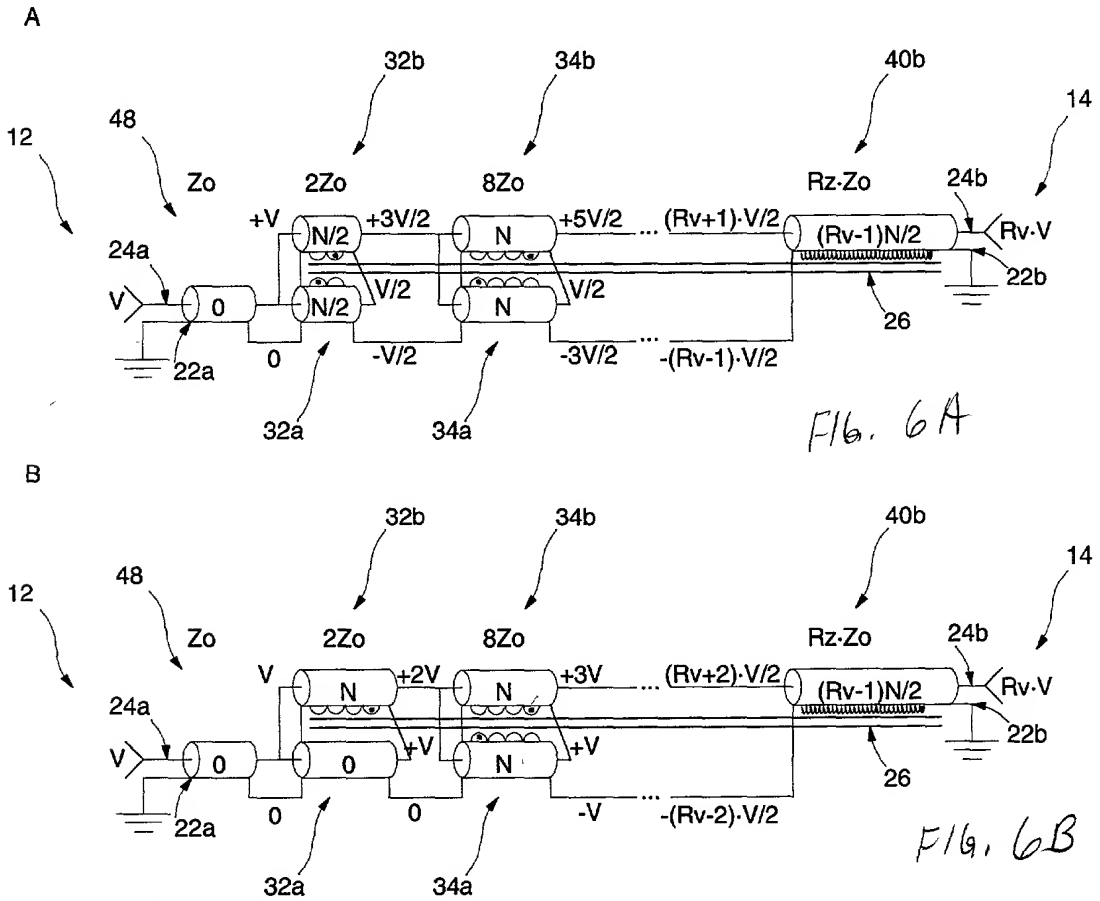


Figure 6. Extending the simple termination schemes in figure 5 to "unbalance" the STLT, and reduce capacitive energy losses and reduce total turns (from cable 40b).

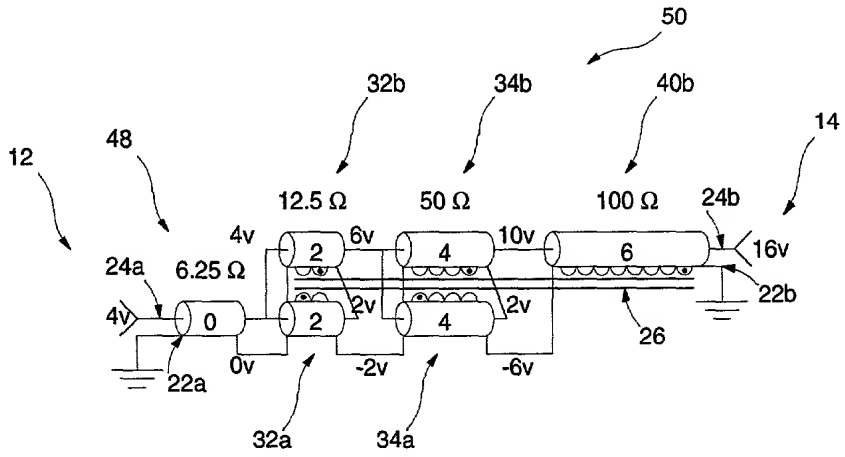


Figure 7. 16:1 non-inverting STLT embodiment of the invention.

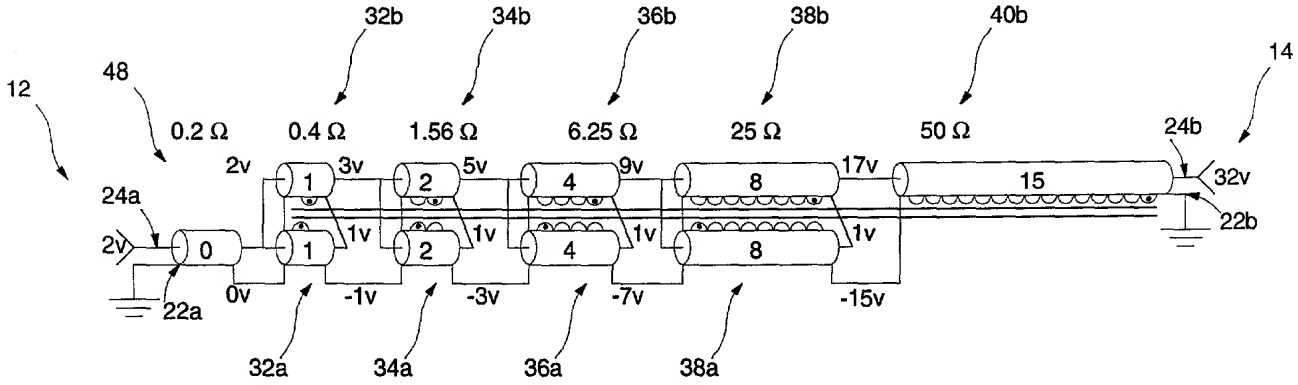


Figure 8. 256:1 non-inverting STLT embodiment of the invention.

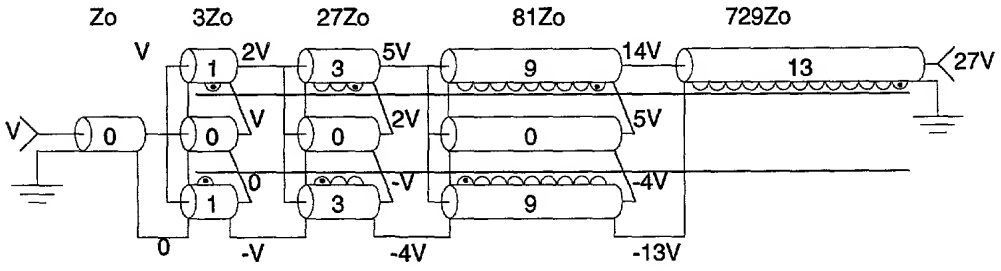
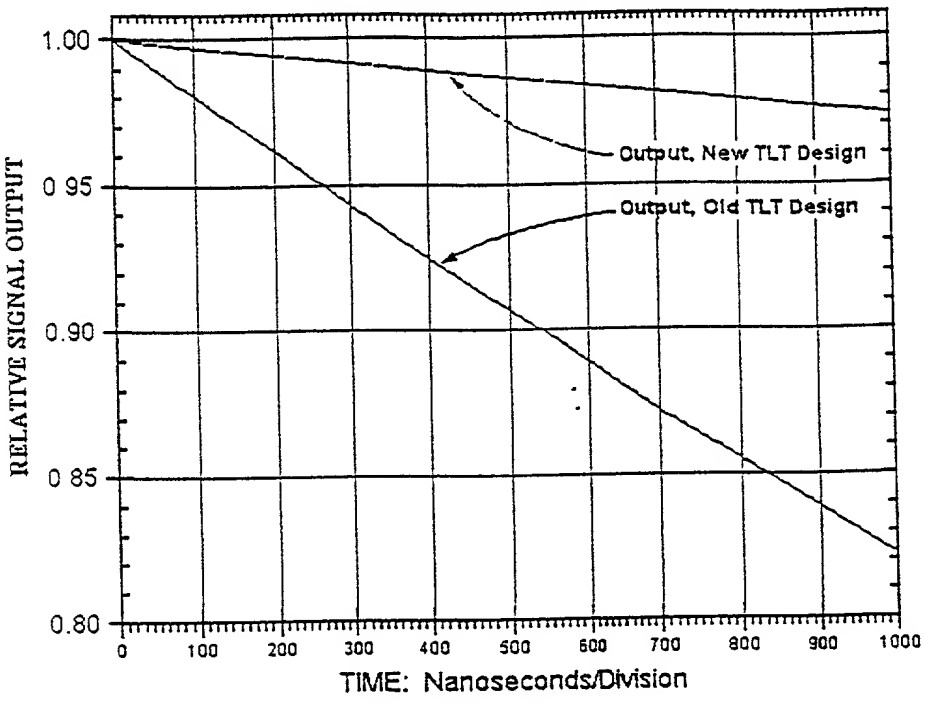


Figure 9. Generalized 729:1 non-inverting STLT embodiment of the invention. Since the middle row of cables do not have to be wound on the core, this behaves exactly like STLT 30.

FIGURE NO. 3: TLT SIGNAL OUTPUT CHARACTERISTICS (DROOP)

16:1 TLT Impedance Ratio ~~r0=8E-5~~



Fig, 10